SUPPLY CHAIN MATURITY MODEL

Presented by : Azhar Qadri
CEO & Founder ISCAR

ISCAR INSTITUTE OF SUPPLY CHAIN APPLICATION AND RESEARCH

ISCEA International Supply Chain Education Alliance

www.iscea-emea.com

Supply Chain Maturity Model gives a framework to assist companies in assessing their current maturity level regarding demand-driven processes. Furthermore, Maturity Model provides a roadmap to set SC strategies to progress towards superior levels of maturity.

The Traditional Supply Chain Maturity Model has a five-stage MM structure as shown below:

S. No.	Subject	Details
1	**Basic Push Operation**	Demand management is virtually non-existent and few initiatives are not integrated internally and, in the SC.
2	**Optimized Push**	Still operates in push mode, but Forecasts are orchestrated, with formal mechanisms of S&OP, established metrics, pilot CPFR and VMI initiatives. Supply and operations are integrated among functional areas, with visible key performance indicators (KPIs). Some lean principles are in-place, there are formal policies for distribution and customers-services, and upper management understands the relevance of optimized push systems.
3	**Hybrid push-pull**	MTO strategies, promotions and exceptions handling are introduced. S&OP includes pull and push products, CPFR and VMI are extended to more products and partners, with better IT tools. Supply and Operations seek strategic alignment with key SC partners, lean practices expand, upper management strongly support hybrid push-pull systems.
4	**Advanced demand - driven (pull)**	Pull sales is over 60% of the portfolio with increased forecast accuracy, S&OP is a value-added activity, event-driven with what-if scenarios. Customers' forecasts are integrated into CPFR and VMI. Supply and Operations have formal cooperation mechanisms with key suppliers, lean is expanded further, with flexible layouts, use of simulation techniques, automated track and tracing for distribution, customer-service is linked to CPFR and VMI. Senior management fully supports demand-driven approach.
5	**Optimized demand - driven (pull)**	Pull sales is over 80%. Marketing and Sales are integrated into the SC. Advanced IT and event driven S&OP are integrated with CPFR and VMI, with advanced automated communication tools. Supply and Operations integrate with second tier suppliers, postponement policies are in-place, KPIs are included in Service Level Agreements with specialized and multi-functional customer-service cells. Management support extends to SC integration.

Companies situate at each maturity stage based on their positioning in the MM Dimensions of Demand Management

(forecast, S&OP, CPFR, VMI), Supply and Operations Management (procurement, manufacturing, warehousing, distribution, customer service), and Product Lifecycle Management (new product forecast, supply chain for new products, risk assessment and management, product tracking and portfolio optimisation).

Within the demand management dimension, statistical forecast evolves from incipient to mature processes, incorporating judgemental and statistical techniques and gradually moving from forecast-based to actual demand-pulled systems. S&OP evolves from non-existent and informal processes to formal and event-driven systems, as expected when S&OP practices mature. The adoption of CPFR and VMI reinforces joint demand management in the SC, with both customers and suppliers, making extensive use of advanced IT and communication tools.

Supply and operations management mature with the integration of lean management and agile supply chain techniques in manufacturing, distribution, and customer services. Procurement and distribution become aligned with suppliers and customers. Senior management plays a key role in operations and customer service.

The stages of product lifecycle management evolve from incipient to become closely based on demand for new products, with differentiated strategies for new product introduction, formal risk assessment and management for NPD, integrated with VMI and CPFR initiatives. Cross-functional portfolio optimization is backed with the active participation of senior management.